

## **The Slide Rule – A Practical Manual, Pickworth, 19<sup>th</sup> Edition, Revised, 1930**

A review of this text's 24<sup>th</sup> edition can be found on this website and should be read as a precursor to this review, which will focus on the differences between the 19<sup>th</sup> (1930) and 24<sup>th</sup> (1950) editions. It will also be helpful for readers to compare the Tables of Contents for these two editions, which are also available on this site.

In the 19<sup>th</sup> edition, the section entitled, "Examples in Technical Calculation" presents illustrations in Mensuration, Weights of Metals, Falling Bodies, Centrifugal Force, the Steam Engine, Steam Boilers, Speed Ratios of Pulleys, Belts and Ropes, Spur Wheels, Screw Cutting, Strength of Shafting, Moments of Inertia, Discharge from Pumps and Pipes, Horse-Power of Water Wheels, Electrical Engineering, Commerce, and Miscellaneous.

The section entitled, "Slide Rules With Log Log Scales" discusses the Davis Log Log, the Jackson-Davis Double, the Yokota, the Faber Log Log, the Perry Log Log, and K&E's Duplex log-log rules.

Other sections of the book cover other forms of rules and include discussions of Fuller's Calculating Rule, Otis King calculators, Thatcher's Calculating Instrument, Nestler Cylindrical Calculator, sectional length or gridiron calculators, the Cooper slide rule, Boucher Calculator, the Halden Calculex, Sperry's Pocket Calculator, the K&E (circular) Calculator, and the Picolet and Fowler circular slide rules.

In the section entitled, "Special Types of Slide Rules" are discussed Nestler's Nestle, Hanauer, and Reitz rules; John Davis & Sons' "Plutocrat", "Monocrat", "Dafield", and Commerce rules; K&E's Polyphase and Polyphase Duplex rules; and the Precision, Universal, Fix, Bauer, Anido, Multiplex, Beghin, and "Long" slide rules.

Under the section entitled, "Slide Rules for Specific Calculations" are included the Engine Power Computer, the Smith-Davis Piecework Balance Calculator, John Davis' Electrical Slide Rule, the Davis-Stokes Field Gunnery Slide Rule, the Davis-Martin Wireless Slide Rule, Farmar's Profit-Calculating Rule, the McLeod Field Artillery Slide Rule, the T O G Slide Rule, the "Electric" Slide Rule, and the Roycastle Electrical Slide Rule,

In summary, although the book offers a well thought-out discussion of the basis of the slide rule and an easy-to-understand set of instructions for its elementary use, its principle value is to provide a good historical view of slide rules and their use in the first third of the 20<sup>th</sup> century.